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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Yuuki Inoue

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EXAMINER

DICKER, DENNIS T

ART UNIT

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2625

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/804,368	<b>Applicant(s)</b> INOUE, YUUKI	
	<b>Examiner</b> DENNIS DICKER	<b>Art Unit</b> 2625	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 10 November 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 34-39, 41-43 and 48-57 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 34-39, 41-43 and 48-57 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 18 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Arguments***

1. Applicant's arguments, see Remarks, filed 11/10/2009 with respect to the rejection(s) of claim(s) 1, 12, 23, 34-39, 41-43 under 102(e) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made in view of Arai et al (US 7,355,748) in view of Ogatsu et al (US 7,199,900)

### ***Claim Rejections - 35 USC § 112***

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 54 cites the limitation "extracting data" in line 2. There is insufficient antecedent basis for this limitation in the claim.

4. Claim 55 and 56 cites the limitation "original color data" in line 1. There is insufficient antecedent basis for this limitation in the claim.

5. Claim 55 and 56 cites the limitation "converted color data" in line 2. There is insufficient antecedent basis for this limitation in the claim.

### ***Claim Rejections - 35 USC § 103***

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 34-39, 41-43, 48-57 are rejected under 35 U.S.C. 103(a) as being unpatentable over in view of Ogatsu.

With respect to **Claim 34**, Arai teaches an image processing apparatus comprising: a color conversion part performing color conversion among a plurality of image forming apparatuses, including a first printer and a second printer (**i.e., Fig.1 and Col. 17 lines 9-18, A plurality of printers including a server for color matching**); and a plurality of color profiles whereby colors of images formed by the respective image forming apparatuses may be made effectively approximate each other through color conversion performed by said color conversion part with the use of the color profiles (**i.e., Col. 13 lines 40-60, server stores a plurality of profiles[Fig. 2] for color matching through color spaces**), wherein said color conversion part uses a color profile from the color profiles (**i.e., 24a of Fig. 2, client acquires profile from storing region[Col. 21 lines 20-28]**) to convert input color data (**i.e., Col. 8 lines 16-25, color conversion is performed from standard color space**), in a RGB color space, to converted color data, in a device-dependent CMYK color space of said second printer (**i.e., Fig. 25 and Col. 37 lines 63-Col. 38 line 28, LUT is used to convert data from RGB space to CMYK space**), for reproducing colors obtained by said first printer by applying said input color data, each of said input color data and said converted color data corresponding to a same color in a predetermined device-independent color space which does not depend on apparatus types (**i.e., Col. 46 lines 28-39, data corresponding to a standard color space is converted into a device**

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**independent color space XYZ**), the color profile being generated by a process including:

(a) producing, in a computer, color patch data by uniformly dividing a RGB color space (**i.e., Col. 21 lines 58-67, LUT makes RGB data for 256 tones which correspond to the 256 tones for each CMYK, ALSO SEE Col. 45 lines 50-Col. 46 lines 67 [Fig. 34 and 37] );**

b) obtaining color patches corresponding to the color patch data in an image formed by a first image forming apparatus of an apparatus type of said first printer (**i.e., Col. 21 lines 52-56)**

(c) measuring coordinate values color of the color patches in the predetermined device- independent color space (**i.e., Col. 46 line 63-Col. 47 line 2, accurately measure color patches**);

(d) obtaining a relationship, for each color patch, between a first color space which depends on the apparatus type of the first printer and the predetermined device-independent color space, based on a measurement result of(c) (**i.e., S125 and Col. 26 lines 30-44, LUT is created for a relationship between the color space of a printer 40 );**

(e) obtaining a relationship between the predetermined device-independent color space in an image formed by a second image forming apparatus of an apparatus type of said second printer and a second color space which depends on said apparatus type of said second printer (**i.e., S125 and Col. 26 lines 30-44 and Col. 21 lines 58-67, LUT**

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**is created for a relationship between the color space of a printer 40 and the second printer 70); and**

(f) calculating a coordinate value in the second color space which depends on the apparatus type of said second printer for each color patch whereby color of an image formed by said second printer has a color difference which is effectively reduced from color of an image formed by said first printer, according to the relationship between the predetermined device\-. independent color space in an image formed by said second printer and the second color space which depends on the apparatus type of said second printer, obtained in (e) **(i.e., Col. 7 lines 4-37, image data of a first printer is calculated into a color value)**, wherein color in an image formed by said second printer using said device-dependent input color data is visually equal to color of an image formed by said first printer using said converted device-dependent color data **(i.e., Col. 22 lines 5-15).**

Arai does not explicitly teach creating a color profile from a first printer and an independent color space and color printed from a second printer and the independent color space.

However, the mentioned claimed limitations are well known in the art as evidenced by Ogatsu, In particular, Ogatsu teaches the use of creating a color profile from a first printer and an independent color space and color printed from a second printer and the independent color space **(i.e., Fig. 1, 2 and 11(a) and Col. 2 line 65-Col. 3 line 12 and Col. 14 line 61-Col. 15 line 8, profile is created using relationship of printed data from a first and second printer).**

In view of this, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify the image processing apparatus of Arai as taught by Ogatsu since Ogatsu suggested in Col. 5 lines 9-29 that such a modification would provide an improved color reproduction method dealing with different factors such as paper color and saturation area.

With respect to **Claim 35**, Arai teaches an image processing apparatus, wherein: said plurality of color profiles are provided from actually measuring color of an image formed by one of said plurality of image forming apparatuses (**i.e., Fig. 2, profiles are stored in server for color conversion**), and creating a color profile whereby color of an image effectively approximating the measured color is formed by another of said plurality of image forming apparatuses approximately equal thereto (**i.e., Col. 2 lines 3-11, means to create color matching information**)

With respect to **Claim 36**, Arai teaches an image processing apparatus, wherein: said plurality of color profiles comprise color profiles whereby a color difference in a color space, which does not depend on apparatus types between images formed by the image forming apparatuses may be made to effectively approximate each other (**i.e., Col. 2 lines 3-11, means to create color matching information**).

With respect to **Claim 37**, Arai teaches an image processing apparatus wherein: said color space which does not depend on apparatus types comprises any one of an LAB color space, an XYZ color space 'and an LUV color space defined by CIE' (**i.e., Col. 45 lines 1-8, standard color space coordinate of XYZ**).

With respect to **Claim 38**, Arai teaches an image processing apparatus comprising a printer driver provided in a host computer which outputs printing information to the image forming apparatus (**i.e., Col. 21 lines 29-47 and Fig. 6**).

With respect to **Claim 39**, Arai teaches an image processing apparatus comprising a controller provided in one of the plurality of image forming apparatuses which forms an image having color which is made to effectively approximate color of image formed by another of said plurality of image forming apparatuses with the use of the color profile (**i.e., Col. 19 lines 4-9 and 23-30**).

With respect to **Claim 41**, Arai teaches an image processing apparatus further comprising, a part selecting a color profile to be applied from among the plurality of color profiles (**i.e., Col. 21 lines 20-28**).

With respect to **Claim 42**, Arai teaches an image processing apparatus wherein: a host computer which provides printing information to the image forming apparatus comprises said part. Selecting a color profile to be applied from among the plurality of color profiles (**i.e., Col. 4 lines 20-61, client computer communicates with printer and server which selects best color profile from plurality of profiles**).

With respect to **Claim 43**, Arai teaches an image forming apparatus comprising: the image processing apparatus; and an image forming part which forms a visible image on a recording medium based on image information output from said image processing apparatus (**i.e., Col. 2 lines 3-11, server and printer communicate color matching information**)



With regards to the image processing apparatus of **Claim 48**, the limitations of the claim 48 are corrected by limitations of claim 34 above. The steps of claim 48 read into the function steps of claim 34.

With respect to **Claim 49**, Arai does not explicitly teach an image processing apparatus wherein the first color space which depends on the apparatus type of the first printer is a CMYK color space and the first color space which depends on the apparatus type of the first printer is different from the second color space which depends on the apparatus type of the second printer in that a color of at least one color material of the first printer is different from a color of a corresponding color material of the second printer.

However, the mentioned claimed limitations are well known in the art as evidenced by Ogatsu, In particular, Ogatsu teaches an image processing apparatus wherein the first color space which depends on the apparatus type of the first printer is a CMYK color space and the first color space which depends on the apparatus type of the first printer is different from the second color space which depends on the apparatus type of the second printer in that a color of at least one color material of the first printer is different from a color of a corresponding color material of the second printer (**i.e., Col. 5 lines 9-18, profiles are created to help match colors when paper of the printers have different brightness values**).

In view of this, it would have been obvious to one having ordinary skill in the art at the time of invention was made to modify the image processing apparatus of Arai as taught by Ogatsu since Ogatsu suggested in Col. 5 lines 9-29 that such a modification

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would provide an improved color reproduction method dealing with different factors such as paper color and saturation area.

With regards to the image processing apparatus of **Claim 50**, the limitations of the claim 50 are corrected by limitations of claim 34 above. The steps of claim 50 read into the function steps of claim 34.

With regards to the image processing apparatus of **Claim 51**, the limitations of the claim 51 are corrected by limitations of claim 34 above. The steps of claim 51 read into the function steps of claim 34.

With regards to the method of **Claim 52**, the limitations of the claim 52 are corrected by limitations of claim 34 above. The steps of claim 52 read into the function steps of claim 34.

With regards to the method of **Claim 53**, the limitations of the claim 53 are corrected by limitations of claim 34 above. The steps of claim 53 read into the function steps of claim 34.

With regards to the computer readable medium of **Claim 57**, the limitations of the claim 57 are corrected by limitations of claim 34 above. The steps of claim 57 read into the function steps of claim 34.

### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.
9. Fukasawa (US 7,274,487) Color space converting apparatus and method.

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10. Pop (US 7,251,058) improved system for generating media transforms.
11. Muramoto (US 6,954,286) color conversion apparatus.
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DENNIS DICKER whose telephone number is (571)270-3140. The examiner can normally be reached on Monday -Thursday 7:30 A.M. to 5:00 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Twyler Haskins can be reached on (571) 272-7406. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. D./  
Examiner, Art Unit 2625  
2/2/2010

/Twyler L. Haskins/  
Supervisory Patent Examiner, Art Unit 2625